



Biodiversity Survey of Ballylongford Co Kerry 2020



By Geoff Hunt
On behalf of Ballylongford Tidy Towns

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1 Introduction

The aim of this survey was to collect records of species present at Ballylongford Q9747, Q9748,Q9847, Q9848,Q9944, Q9945,Q9946, Q9947 and R0046 County Kerry. The objective was to improve the number of species recorded at Ballylongford and to provide up to date records. The species lists include bony fish, bird, butterfly, dragonfly, hoverfly, other terrestrial insects and flowering plants.

The methods used include a telescope, binoculars, butterfly net, pond net, camera and visual sightings. The survey was carried out between January 1st 2019 and December 31st 2019, which included 16 Summer visits and 11 Autumn/Winter visits. This was done to maximise the number of records during all the seasons of the year. All records have been submitted to the National Biodiversity Data Centre in Waterford and will be included onto their online maps.

All photographs are by Geoff Hunt



Figure 1 - Little Egret *Egretta gazetta* .



Figure 2 - Carrigafoyle Castle

2 Survey Area

The town of Ballylongford is situated on the southern shores of the Shannon Estuary, which is part of the River Shannon and River Fergus Estuaries SPA 004077[Special Protection Area]. Ireland is required under the terms of the EU Birds Directive (2009/147/EC) to designate Special Protection Areas (SPAs) for the protection of endangered species of wild birds.

- Listed rare and vulnerable species.
- Regularly occurring migratory species, such as ducks, geese, swans and waders.
- Wetlands, especially those of international importance, which attract large numbers of migratory birds each year.

More information can be found on the National parks and Wildlife Service website <https://www.npws.ie/protected-sites/spa>

Ballylongford has a variety of habitats including large areas of mudflats, salt marsh and small woodlands with hedgerows, meadows and views of the majestic Shannon. A climb to the top of Carrigafoyle Castle is highly recommended. As the tide comes in birds are driven towards the shoreline and eventually roost on the river bank and nearby fields. When the tide is out the birds can be distant. However, the road leading to Carrigafoyle Castle and the Carrig Island bridge will give you good views. When the tide is in, some wading birds can be seen roosting on Carrig Island or along the rocky shoreline at Kenturk Point. During the winter months large flocks of Duck are scattered about over the entire area. It is worthwhile to walk out to the Battery on Carrig Island to look for Divers and Grebes that are present during the winter months. There are also two benches for you to sit and enjoy the view. The Saleen Pier and Sand Quay offer more views of the shoreline. There is a flooded field at Kilelton along the shoreline[see map, figure 3 page 3] which has produced some interesting birds of note. However this habitat is changing due to a drainage channel caused by the tide. The water is now flowing in and out at a much faster rate making it more tidal.



Figure 3 - High tide roost on Carrig Island

Ballylongford Tidy Towns Committee have commissioned this survey so as to create awareness of the Biodiversity that survives along side us as we live our daily lives. For this survey I have kept all my observations where there is public access [See figure 3 page 3].



Figure 4 - Sketch Map of the Ballylongford

3 Results for Ballylongford

3.1 Birds

Table 1 below shows the 94 bird species that have been identified and recorded during this survey.

Table 1 - Bird species recorded at Ballylongford

Species Name	Scientific Name	Highest Count	Date	Comment
Water Birds				
Great Northern Diver	<i>Gavia immer</i>	1	27/01/2019	Wintering
Red-throated Diver	<i>Gavia stellata</i>	2	08/02/2019	Wintering
Great Crested Grebe	<i>Podiceps cristatus</i>	3	27/01/2019	Wintering
Little Grebe	<i>Tachybaptus ruficollis</i>	1	02/02/2019	Wintering
Cormorant	<i>Phalacrocorax carbo</i>	7	27/01/2019	Wintering
Little Egret	<i>Egretta garzetta</i>	5	27/01/2019	Resident
Grey Heron	<i>Ardea cineria</i>	2	27/01/2019	Resident
Whooper Swan	<i>Cygnus cygnus</i>	15	24/02/2019	Wintering
Brent Goose	<i>Branta bernicula</i>	49	27/01/2019	Wintering
Shelduck	<i>Tadorna tadorna</i>	77	27/01/2019	Resident/breeding
Wigeon	<i>Anas penelope</i>	780	27/01/2019	Wintering
Teal	<i>Anas crecca</i>	70	27/01/2019	Wintering
Mallard	<i>Anas platyrhynchos</i>	14	27/01/2019	Resident
Shoveler	<i>Anas clypeata</i>	4	08/02/2019	Wintering
Common Scoter	<i>Melanitta nigra</i>	1	27/01/2019	Wintering
Black Guillemot	<i>Cephus grylle</i>	6	06/04/2019	Wintering
Razorbill	<i>Alca torda</i>	1	08/02/2019	Wintering
Gannet	<i>Morus bassanas</i>	11	21/09/2019	Wintering
Oystercatcher	<i>Haematopus ostralegus</i>	12	27/01/2019	Resident
Dunlin	<i>Calidris alpina</i>	700	27/01/2019	Wintering
Knot	<i>Calidris canutus</i>	1	16/08/2019	Wintering
Sanderling	<i>Calidris alba</i>	27	21/09/2019	Wintering
Curlew Sandpiper	<i>Calidris ferruginea</i>	1	01/09/2019	Passage Migrant
White-rumped Sandpiper	<i>Calidris fuscicollis</i>	1	12/10/2019	Passage Migrant
Snipe	<i>Gallinago gallinago</i>	5	02/02/2019	Wintering
Bar-tailed Godwit	<i>Limosa lapponica</i>	6	27/01/2019	Wintering
Black-tailed Godwit	<i>Limosa limosa</i>	48	06/04/2019	Wintering
Whimbrel	<i>Numenius phaeopus</i>	26	07/04/2019	Passage Migrant
Curlew	<i>Numenius arquata</i>	310	27/01/2019	Wintering
Lapwing	<i>Vanellus vanellus</i>	550	27/01/2019	Wintering
Golden Plover	<i>Pluvialis apricaria</i>	800	27/01/2019	Wintering
Grey Plover	<i>Pluvialis squatarola</i>	21	27/01/2019	Wintering
Ringed Plover	<i>Charadrius hiaticula</i>	46	27/01/2019	Wintering
Turnstone	<i>Arenaria interpres</i>	25	23/03/2019	Wintering
Redshank	<i>Tringa totanus</i>	40	27/01/2019	Wintering
Greenshank	<i>Tringa nebularia</i>	6	27/01/2019	Wintering
Common Sandpiper	<i>Actitis hypoleucos</i>	1	07/04/2019	Summering

Black-headed Gull	<i>Chroicocephalus ridibundus</i>	380	27/01/2019	Wintering
Mediterranean Gull	<i>Larus melanocephalus</i>	4	29/07/2019	Passage Migrant
Common Gull	<i>Larus canus</i>	4	27/01/2019	Wintering
Herring Gull	<i>Larus argentatus</i>	3	27/01/2019	Wintering
Greater Black-backed Gull	<i>Larus</i>	4	27/01/2019	Wintering
Lesser Black-backed Gull	<i>Larus fuscus</i>	7	06/04/2019	Wintering
Sandwich Tern	<i>Sterna sandvicensis</i>	4	07/04/2019	Summering
Common Tern	<i>Sterna</i>	1	16/08/2019	Migrant
Kingfisher	<i>Alcedo atthis</i>	1	29/07/2019	Resident/breeding

Passerines

Sparrowhawk	<i>Accipiter nisus</i>	1	07/04/2019	Resident
Merlin	<i>Falco columbarius</i>	1	14/09/2019	Resident
Kestrel	<i>Falco tinnunculus</i>	2	21/09/2019	Resident
Peregrine Falcon	<i>Falco peregrinus</i>	1	23/03/2019	Resident
Buzzard	<i>Buteo buteo</i>	1	19/12/2019	Wintering
Hen Harrier	<i>Circus cyaneus</i>	1	19/12/2019	Wintering
Rock Pipit	<i>Anthus petrosus</i>	1	27/01/2019	Resident/breeding
Meadow Pipit	<i>Anthus pratensis</i>	1	27/01/2019	Resident/breeding
Skylark	<i>Alauda arvensis</i>	1	08/02/2019	Resident/breeding
Swallow	<i>Hirundo rustica</i>	8	04/05/2019	Resident/breeding
House Martin	<i>Delichon urbicum</i>	4	05/05/2019	Summer/breeding
Sand Martin	<i>Riparia riparia</i>	6	31/07/2019	Passage Migrant
Pied Wagtail	<i>Motacilla alba yarrelli</i>	4	27/01/2019	Resident/breeding
Grey Wagtail	<i>Motacilla cinerea</i>	2	23/03/2019	resident/breeding
Collared Dove	<i>Streptopelia decaocto</i>	4	23/03/2019	Resident/breeding
Turtle Dove	<i>Streptopelia turtur</i>	1	21/09/2019	Passage Migrant
Feral Pigeon	<i>Columba livia</i>	8	18/02/2019	Resident
Wood Pigeon	<i>Columba palumbus</i>	30	29/07/2019	resident/breeding
Pheasant	<i>Phasianus colchicus</i>	2	23/03/2019	resident/breeding
Duncock	<i>Prunella modularis</i>	4	23/03/2019	Resident/breeding
Robin	<i>Erithacus rubecula</i>	3	27/01/2019	Resident/breeding
Stonechat	<i>Saxicola torquata</i>	4	27/01/2019	Resident/breeding
Wheatear	<i>Oenanthe oenanthe</i>	2	04/05/2019	Passage Migrant
Song Thrush	<i>Turdus philomelos</i>	2	23/03/2019	Resident/breeding
Mistle Thrush	<i>Turdus viscivorus</i>	1	27/01/2019	Resident/breeding
Redwing	<i>Turdus iliacus</i>	12	27/01/2019	Wintering
Blackbird	<i>Turdus merula</i>	3	27/01/2019	Resident/breeding
Blackcap	<i>Sylvia atricapilla</i>	2	04/05/2019	Summer/breeding
Chiffchaff	<i>Phylloscopus collybita</i>	2	07/04/2019	Summer/breeding
Goldcrest	<i>Regulus regulus</i>	2	27/01/2019	Resident/breeding
Wren	<i>Troglodytes troglodytes</i>	2	23/03/2019	Resident/breeding
Great Tit	<i>Parus major</i>	2	23/03/2019	Resident/breeding
Blue Tit	<i>Cyanistes caeruleus</i>	2	23/03/2019	Resident/breeding
Coal Tit	<i>Parus ater</i>	2	23/03/2019	Resident/breeding
Jackdaw	<i>Corvus monedula</i>	40	27/01/2019	Resident/breeding
Magpie	<i>Pica pica</i>	1	27/01/2019	Resident/breeding
Rook	<i>Corvus frugilegus</i>	50	27/01/2019	Resident
Hooded Crow	<i>Corvus cornix</i>	6	27/01/2019	Resident/breeding
Raven	<i>Corvus corax</i>	2	23/03/2019	Resident

Chough	<i>Pyrhocorac pyrrhocorax</i>	2	08/02/2019	Wintering
Starling	<i>Sturnus vulgaris</i>	6	23/03/2019	Resident/breeding
House Sparrow	<i>Passer domesticus</i>	12	04/03/2019	Resident/breeding
Chaffinch	<i>Frigilla coelebs</i>	22	27/01/2019	Resident/breeding
Goldfinch	<i>Carduelis carduelis</i>	3	04/05/2019	Resident/breeding
Greenfinch	<i>Carduelis chloris</i>	1	01/12/2019	Resident/breeding
Bullfinch	<i>Pyrrhula pyrrhula</i>	2	01/12/2019	Resident/breeding
Linnet	<i>Carduelis cannabina</i>	3	23/03/2019	Resident/breeding
Reed Bunting	<i>Emberiza schoeniclus</i>	2	08/02/2019	Wintering



Figure 5 - Bar-tailed Godwit *Limosa limosa*

3.2 Butterfly and Moth

Table 2 below shows the 12 Butterfly and 3 Moth species that have been identified and recorded during this survey

Table 2 - Butterfly and Moth species recorded at Ballylongford

Butterfly

Small Tortoiseshell	<i>Aglais urticae</i>	21/09/2019
Orange Tip	<i>Anthocharis cardamines</i>	05/05/2019
Ringlet	<i>Aphantopus hyperantus</i>	06/07/2019
Holly Blue	<i>Celastrina argiolus</i>	05/05/2019
Peacock	<i>Inachis io</i>	05/05/2019
Wall Brown	<i>Lasiommata megera</i>	02/08/2019
Meadow Brown	<i>Maniola jurtina</i>	06/07/2019
Speckled Wood	<i>Parage aegeria</i>	05/05/2019
Green-veined White	<i>Pieris napi</i>	05/05/2019
Large White	<i>Pieris brassicae</i>	31/07/2019
Red Admiral	<i>Vanessa atalanta</i>	21/09/2019
Painted Lady	<i>Vanessa cardui</i>	06/07/2019

Moth

Six-spot Burnet Moth	<i>Zygaena filipendulae</i>	02/08/2019
Humming-bird Hawk-moth	<i>Macroglossum stellatarum</i>	06/07/2019
Silver Y Moth	<i>Autographa gamma</i>	06/07/2019



Figure 6 - Wall Brown *Lasiommata megera*

3.3 Hoverfly

Table 3 below shows the 16 species of hoverfly that have been identified and recorded during this survey.

Table 3 - Hoverfly species recorded at Ballylongford

Hoverfly		
	<i>Cheilosia illustrata</i>	06/07/2019
	<i>Epistrophe eligans</i>	04/05/2019
Marmalade Fly	<i>Episyrphus balteatus</i>	31/07/2019
	<i>Eristalis arbustorum</i>	29/07/2019
	<i>Eristalis nemorum</i>	01/09/2019
	<i>Eristalis pertinax</i>	07/04/2019
	<i>Eristalis tenax</i>	31/07/2019
Migrant Hoverfly	<i>Eupeodes corollae</i>	04/05/2019
	<i>Eupeodes latifasciatus</i>	31/07/2019
	<i>Eupeodes luniger</i>	13/06/2019
Pyjama Fly	<i>Helophilus pendulus</i>	07/04/2019
	<i>Melanostoma mellinum</i>	06/07/2019
Chequered Hoverfly	<i>Melanostoma scalare</i>	07/04/2019
	<i>Platycheirus albimanus</i>	31/07/2019
Pied Hoverfly	<i>Scaeva pyrastris</i>	29/07/2019
Long Hoverfly	<i>Sphaerophoria scripta</i>	06/07/2019



Figure 7 - Pied Hoverfly *Scaeva pyrastris*

3.4 Bees

Table 4 below shows the 6 bee species that have been identified and recorded during this survey.

Table 4 - Bee species recorded at Ballylongford

Bee		
Honey Bee	<i>Apis mellifica</i>	05/05/2019
Heath Bumble Bee	<i>Bombus jonellus</i>	02/08/2019
White-tailed Bumble Bee	<i>Bombus lucorum agg</i>	05/05/2019
Carder Bee	<i>Bombus pascuorum</i>	05/05/2019
Early Bumble Bee	<i>Bombus pratorum</i>	05/05/2019
Early Nomad Bee	<i>Nomada leucophthalma</i>	04/05/2019



Figure 8 Early Bumblebee *Bombus pratorum*

3.5 Other terrestrial invertebrates

Table 5 below shows the 22 species of other terrestrial invertebrate species that have been identified and recorded during this survey.

Table 5 - Other terrestrial invertebrate species recorded at Ballylongford

Other Terrestrial invertebrates

<i>Aeshna mixta</i>	Migrant Hawker Dragonfly	04/10/2019
<i>Andricus kollari</i>	Gall Wasp	04/10/2019
<i>Araneus diadematus</i>	Garden Spider	04/10/2019
<i>Armadillo vulgare</i>	Common Pill Woodlouse	06/07/2019
<i>Bibio marci</i>	St Mark's Fly	05/05/2019
<i>Chorthippus brunneus</i>	Common Field Grasshopper	29/07/2019
<i>Coccinella septempunctata</i>	7-spot Ladybird	23/03/2019
<i>Diplolepis rosae</i>	Robin's Pincushion	01/09/2019
<i>Haplophilus subterraneus</i>	Centipede	06/07/2019
<i>Lasius flavus</i>	Yellow Meadow Ant	06/07/2019
<i>Lithobius forficatus</i>	Centipede	06/07/2019
<i>Lumbricus terrestris</i>	Earthworm	06/07/2019
<i>Mesembrina meridiana</i>	Noonfly	05/05/2019
<i>Metellina segmentata</i>	Spider	01/09/2019
<i>Myrmica rubra</i>	Red Ant	06/07/2019
<i>Myrmica ruginodis</i>	Red Ant	06/07/2019
<i>Ocypus olens</i>	Devil's Coach-horse	06/07/2019
<i>Omocestus viridulus</i>	Common Green Grasshopper	29/07/2019
<i>Oniscus asellus</i>	Shiny Woodlouse	06/07/2019
<i>Palomena prasina</i>	Green Shieldbug	01/09/2019
<i>Pentatoma rufipes</i>	Forest Shieldbug	01/09/2019
<i>Philaenus spumarius</i>	Cuckoo Spit	06/08/2019
<i>Polydesmus angustus</i>	Flat-backed Millipede	06/07/2019
<i>Porcellio scaber</i>	Rough Woodlouse	06/07/2019
<i>Tachypodoiulus niger</i>	White-legged Snake Millipede	06/07/2019
<i>Vespula vulgaris</i>	Common Wasp	04/10/2019



Figure 9 Robin's Pincushion *Diplolepis rosae*

3.6 Aquatic invertebrates

Table 6 below shows the 23 aquatic species identified and recorded during this survey.

Table 6 - Aquatic species recorded at Ballylongford

Aquatic invertebrates

Crustaceans

<i>Cancer pagurus</i>	Edible Crab	24/02/2019
<i>Carcinus maenas</i>	Shore Crab	24/02/2019
<i>Dytiscus circumcinctus</i>	Water Beetle	18/05/2019
<i>Gammarus duebeni</i>	Fresh water shrimp	18/05/2019
<i>Gyrinus substriatus</i>	Whirligig beetle	18/05/2019
<i>Hediste diversicolor</i>	Ragworm	24/02/2019
<i>Ligia oceanica</i>	Common Sea Slater	18/05/2019
<i>Palaemon serratus</i>	Common Prawn	18/05/2019
<i>Pomatoceros triqueter</i>	Worm	24/02/2019
<i>Porcellana platycheles</i>	Broad-clawed Porcelain Crab	24/02/2019
<i>Xantho incisus</i>	Montagu's Crab	24/02/2019

Molluscs

<i>Actinia equina</i>	Beadlet Anemone	18/05/2019
<i>Calliostoma zizyphinum</i>	Painted Topshell	01/02/2019
<i>Chlamys varia</i>	Variegated Scallop	18/05/2019
<i>Ensis ensis</i>	Razor Shell	24/02/2019
<i>Gibbula umbilicalis</i>	Flat Topshell	01/02/2019
<i>Hinia incrassata</i>	Thick-lipped Dog Whelk	18/05/2019
<i>Littorina littorea</i>	Common Periwinkle	01/02/2019
<i>Littorina obtusata</i>	Flat Periwinkle	01/02/2019
<i>Ophiothrix fragilis</i>	Common Brittlestar	18/05/2019
<i>Ostrea edulis</i>	Oyster	18/05/2019
<i>Patella vulgata</i>	Limpet	24/02/2019
<i>Semibalanus balanoides</i>	Acorn Barnacle	24/02/2019



Figure 10 - Broad-clawed Porcelain Crab *Porcellana platycheles*

3.7 Fish

Table 7 below shows the list of 4 fish species identified and recorded during this survey.

Table 7 - Fish species recorded at Ballylongford

Fish		
Three Spined Stickleback	<i>Gasterosteus aculeatus</i>	05/05/2019
Blenny	<i>Lipophrys pholis</i>	24/09/2019
Butterfish	<i>Pholis gunnellus</i>	24/02/2019
Minnow	<i>Phoxinus phoxinus</i>	31/07/2019



Figure 11 - 3 Blenny - *Lipophrys pholis*

3.8 Mammals

Table 8 below shows the list of 3 mammal species identified and recorded during this survey.

Table 8 - Mammals recorded at Ballylongford

Mammals		
Brown Hare	<i>Lepus europaeus</i>	16/08/2019
Bottled-nosed Dolphin	<i>Tursiops truncatus</i>	06/07/2019
Fox	<i>Vulpes vulpes</i>	16/08/2019



Figure 12 - Fox - *Vulpes vulpes*

3.9 Plants

Table 9 below shows the list of 144 plants species identified and recorded during this survey.

Table 9 - Plant species recorded at Ballylongford

Vascular Plants

<i>Acer pseudoplatanus</i>	Sycamore	31/08/2019
<i>Achillea ptarmica</i>	Sneezewort	31/07/2019
<i>Aesculus hippocastanum</i>	Horse Chestnut	24/02/2019
<i>Alnus glutinosa</i>	Alder	24/02/2019
<i>Anagallis arvensis</i>	Scarlet Pimpernel	31/08/2019
<i>Angelica sylvestris</i>	Angelica	31/08/2019
<i>Armeria maritima</i>	Thrift	31/08/2019
<i>Arum maculatum</i>	Lords-and-ladies	23/03/2019
<i>Asplenium ceterach</i>	Rustyback	04/10/2019
<i>Asplenium ruta-muraria</i>	Wall-rue	31/08/2019
<i>Asplenium scolopendrium</i>	Hart's-tongue	23/03/2019
<i>Asplenium trichomanes</i>	Maidenhair Spleenwort	24/02/2019
<i>Aster tripolium</i>	Sea Aster	31/08/2019
<i>Atriplex glabriuscula</i>	Babington's Orache	13/06/2019
<i>Atriplex patula</i>	Common Orache	31/08/2019
<i>Bellis perennis</i>	Daisy	24/02/2019
<i>Beta vulgaris</i>	Sea Beet	04/05/2019
<i>Betula pendula</i>	Silver Birch	01/12/2019
<i>Betula pubescens</i>	Downy Birch	01/12/2019
<i>Brassica rapa</i>	Turnip	23/03/2019
<i>Cakile maritima</i>	Sea Rocket	13/06/2019
<i>Calystegia sylvatica</i>	Large Bindweed	29/07/2019
<i>Cardamine hirsuta</i>	Hairy Bitter-cress	23/03/2019
<i>Centaurea nigra</i>	Knapweed	29/07/2019
<i>Centaureum erythraea</i>	Common Centaury	31/07/2019
<i>Cerastium fontanum</i>	Mouse-ear	23/03/2019
<i>Circaea lutetiana</i>	Enchanter's-nightshade	31/08/2019
<i>Cirsium arvense</i>	Creeping Thistle	31/08/2019
<i>Cirsium palustre</i>	Marsh Thistle	31/08/2019
<i>Cirsium vulgare</i>	Spear Thistle	23/03/2019
<i>Cochlearia officinalis</i>	Common Scurvygrass	31/08/2019
<i>Convolvulus arvensis</i>	Field Bindweed	29/07/2019
<i>Crataegus monogyna</i>	Hawthorn	24/02/2019
<i>Crocodymia. x crocosmiiflora</i>	Montbretia	24/02/2019
<i>Cymbalaria muralis</i>	Ivy-leaved Toadflax	31/08/2019
<i>Daucus carota</i>	Wild Carrot	31/08/2019
<i>Dryopteris filix-mas</i>	Male-fern	23/03/2019
<i>Epilobium hirsutum</i>	Great Willowherb	06/07/2019
<i>Equisetum arvense</i>	Field Horsetail	23/03/2019
<i>Euphorbia helioscopia</i>	Sun Spurge	23/03/2019
<i>Erysimum cheiri</i>	Wallflower	31/08/2019
<i>Fagus sylvatica</i>	Beech	23/03/2019

<i>Fallopia japonica</i>	Japanese Knotweed	24/02/2019
<i>Ficaria verna</i>	Lesser Celandine	23/03/2019
<i>Filipendula ulmaria</i>	Meadowsweet	13/06/2019
<i>Fraxinus excelsior</i>	Ash	24/02/2019
<i>Fuchsia magellanica</i>	Fuchsia	05/05/2019
<i>Galium aparine</i>	Cleavers	23/03/2019
<i>Galium saxatile</i>	Heath Bedstraw	29/07/2019
<i>Geranium dissectum</i>	Cut-leaved Crane's-bill	23/03/2019
<i>Geranium molle</i>	Dove's-foot Crane's-bill	31/08/2019
<i>Geranium robertianum</i>	Herb-robert	23/03/2019
<i>Geum urbanum</i>	Wood Aven	04/05/2019
<i>Hedera helix</i>	Ivy	24/02/2019
<i>Heracleum sphondylium</i>	Hogweed	31/08/2019
<i>Hyacinthoides hispanica</i>	Spanish Bluebell	06/04/2019
<i>Hyacinthoides non-scripta</i>	Bluebell	06/04/2019
<i>Hypericum androsaemum</i>	Tutsan	29/07/2019
<i>Hypericum perforatum</i>	Perforate St John's-wort	31/08/2019
<i>Hypericum tetrapterum</i>	Square-stalked St John's-wort	29/07/2019
<i>Ilex aquifolium</i>	Holly	24/02/2019
<i>Iris pseudacorus</i>	Yellow Iris	23/03/2019
<i>Lamium purpureum</i>	Red Dead-nettle	31/08/2019
<i>Lapsana communis</i>	Nipplewort	31/08/2019
<i>Lathyrus pratensis</i>	Meadow Vetchling	06/07/2019
<i>Leucanthemum vulgare</i>	Oxeye daisy	13/06/2019
<i>Lolium perenne</i>	Perennial Rye-grass	31/08/2019
<i>Lonicera periclymenum</i>	Honeysuckle	31/08/2019
<i>Lotus corniculatus</i>	Bird's Foot Trefoil	04/05/2019
<i>Lotus pendunculatus</i>	Greater Bird's-foot Trefoil	29/07/2019
<i>Lyceums barbarum</i>	Duke of Argyll's Teaplant	23/03/2019
<i>Lysimachia nemorum</i>	Yellow Pimpernel	06/07/2019
<i>Lythrum salicaria</i>	Purple-loosestrife	06/07/2019
<i>Matricaria discoidea</i>	Pineappleweed	13/06/2019
<i>Medicago lupulina</i>	Black Medick	04/05/2019
<i>Mentha aquatica</i>	Water Mint	31/07/2019
<i>Myosotis scorpioides</i>	Water Forget-me-not	31/07/2019
<i>Nasturtium officinale</i>	Water-cress	06/07/2019
<i>Odontites vernus</i>	Red Bartsia	31/08/2019
<i>Oenanthe crocata</i>	Hemlock Water-dropwort	31/08/2019
<i>Parietaria judaica</i>	Pellitory-of-the-wall	31/08/2019
<i>Persicaria maculosa</i>	Redshank	06/07/2019
<i>Picea abies</i>	Norway Spruce	24/02/2019
<i>Pinus pinaster</i>	Maritime Pine	01/02/2019
<i>Pinus radiata</i>	Monterey Pine	31/07/2019
<i>Pinus sylvestris</i>	Scots Pine	31/08/2019
<i>Plantago coronopus</i>	Buck's-horn Plantain	23/03/2019
<i>Plantago lanceolata</i>	Ribwort Plantain	23/03/2019
<i>Plantago major</i>	Greater Plantain	31/08/2019
<i>Plantago maritima</i>	Sea Plantain	13/06/2019
<i>Polygonum aviculare</i>	Knotgrass	23/03/2019
<i>Polypodium vulgare</i>	Polypody	24/02/2019

<i>Populus alba</i>	White Poplar	31/08/2019
<i>Potentilla anglica</i>	Trailing Tormantil	29/07/2019
<i>Potentilla anserina</i>	Silverweed	31/08/2019
<i>Potentilla erecta</i>	Tormantil	31/07/2019
<i>Potentilla reptans</i>	Creeping Cinquefoil	13/06/2019
<i>Primula vulgaris</i>	Primrose	23/03/2019
<i>Prunus avium</i>	Wild Cherry	23/04/2019
<i>Prunus spinosa</i>	Blackthorn	23/03/2019
<i>Pulicaria dysenterica</i>	Fleabane	31/07/2019
<i>Quercus robur</i>	Pedunculate Oak	04/10/2019
<i>Raphanus raphanistrum</i>	Sea Radish	18/05/2019
<i>Rubus fruticosus agg</i>	Bramble	04/10/2019
<i>Ranunculus acris</i>	Meadow Buttercup	24/02/2019
<i>Ranunculus repens</i>	Creeping Buttercup	31/08/2019
<i>Rumex acetosa</i>	Common Sorrel	13/06/2019
<i>Rumex crispus</i>	Curled Dock	13/06/2019
<i>Rumex obtusifolius</i>	Broad-leaved Dock	23/03/2019
<i>Salix caprea</i>	Goat Willow	31/07/2019
<i>Salix fragilis</i>	Crack-willow	23/03/2019
<i>Sambucus nigra</i>	Elder	06/04/2019
<i>Senecio aquaticus</i>	Marsh Ragwort	29/07/2019
<i>Senecio jacobaea</i>	Common Ragwort	23/03/2019
<i>Senecio vulgaris</i>	Groundsel	13/06/2019
<i>Silene vulgaris</i>	Bladder Campion	04/05/2019
<i>Sorbus aucuparia</i>	Rowan	06/04/2019
<i>Spartina anglica</i>	Common Cord-grass	31/08/2019
<i>Spergularia media</i>	Greater Sea-spurrey	23/03/2019
<i>Stachys sylvatica</i>	Hedge Woundwort	29/07/2019
<i>Stellaria alsine</i>	Bog Stitchwort	06/07/2019
<i>Stellaria graminea</i>	Lesser Stitchwort	06/07/2019
<i>Symphoricarpos albus</i>	Snowberry	31/08/2019
<i>Symphytum officinale x asperum</i>	Russian Comfrey	05/05/2019
<i>Taraxacum agg.</i>	Dandelion	31/08/2019
<i>Tilia platyphyllos</i>	Large -leaved Lime	31/08/2019
<i>Torilis japonica</i>	Upright Hedge-parsley	29/07/2019
<i>Trifolium pratense</i>	Red Clover	31/08/2019
<i>Trifolium repens</i>	White Clover	31/08/2019
<i>Tripleurospermum maritimum</i>	Sea Mayweed	13/06/2019
<i>Tussilago farfara</i>	Coltsfoot	24/02/2019
<i>Ulex europaeus</i>	Gorse	23/03/2019
<i>Ulmus glabra</i>	Wych Elm	06/07/2019
<i>Ulmus procera</i>	English Elm	06/07/2019
<i>Umbilicus rupestris</i>	Navelwort	24/02/2019
<i>Urtica dioica</i>	Common Nettle	31/08/2019
<i>Verbascum thapsus</i>	Great Mullein	31/08/2019
<i>Veronica beccabunga</i>	Brooklime	29/07/2019
<i>Veronica chamaedrys</i>	Germander Speedwell	04/05/2019
<i>Veronica persica</i>	Field Speedwell	23/03/2019
<i>Vinca minor</i>	Lesser Periwinkle	23/03/2019

<i>Vicia cracca</i>	Tufted Vetch	29/07/2019
<i>Vicia sepium</i>	Bush Vetch	04/05/2019
<i>Viola riviniana</i>	Common Dog-violet	06/04/2019



Figure 13 - Bluebell - *Hyacinthoides non-scripta*

3.10 Fungi

Table 10 Below show the 2 species of Fungi identified and recorded during this survey.

Table 10 - Fungi recorded at Ballylongford

Fungi		
Lawyer's Wig	<i>Coprinus comatus</i>	01/09/2019
Sulphur Tuft	<i>Hypholoma fasciculare</i>	01/09/2019



Figure 14 - Sulphur Tuft -*Hypholoma fasciculare*

3.11 Algae

Table 11 Below show the 11 species of Algae identified and recorded during this survey.

Table 11 - Algae recorded at Ballylongford

Algae		
Sea Squirt	<i>Asciidiella</i>	24/02/2019
Orange Sea Lichen	<i>Caloplaca marina</i>	24/02/2019
Coral Weed	<i>Corallina officinalis</i>	24/02/2019
Toothed Wrack	<i>Fucus serratus</i>	24/02/2019
Bladderwrack	<i>Fucus vesiculosus</i>	01/02/2019
Breadcrumb Sponge	<i>Halichondria panicea</i>	24/02/2019
Oarweed	<i>Laminaria digitata</i>	24/02/2019
Channelled Wrack	<i>Pelvetia canaliculata</i>	01/02/2019
Sea Ivory	<i>Ramalina siliquosa</i>	02/08/2019
Sea Lettuce	<i>Ulva lactuca</i>	24/02/2019
Tar Lichen	<i>Verrucaria maura</i>	02/08/2019



Figure 15 - Sea Ivory - *Ramalina siliquosa*

Discussion

3.12 Species results

The figure below shows the total number of species recorded and for each group during this survey for Tarbert. These include 188 Animals, 144 Plants, 2 Fungi and 11 Algae species. A total of 345 species. The results of this survey show a Biodiversity richness of 345 species. Ballylongford has a large area of wetland habitats. Wetland habitats are known to hold more biodiversity richness than other kinds of habitats. This is reflected in the results of this survey.

Species Group Results

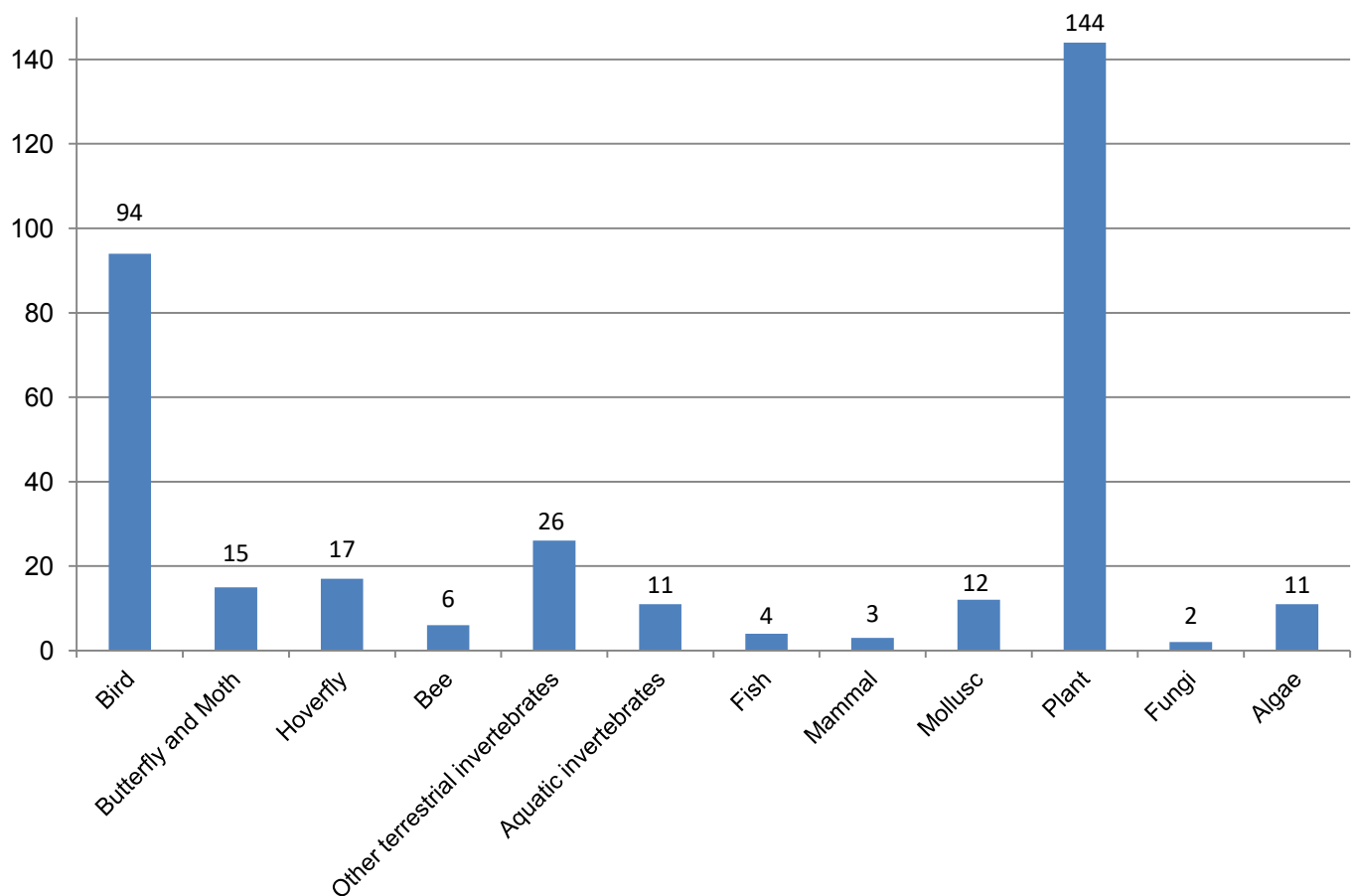


Figure 16 - Species results

3.1 Birds

The number of bird species recorded during this survey was 94. There are probably other bird species present but not recorded such as Barn Owl, Long-eared Owl, Spotted Flycatcher, Treecreeper, Long-tailed Tit and Fieldfare. These species maybe recorded in future surveys.

3.1.1 Threatened Species and Protected Species

Table 12 below show the list of 23 threatened and 22 Protected Species that were recorded during this survey. Ballylongford has 45 threatened or protected species that are surviving close to people.

Table 12 - Threatened and Protected Species

Threatened Species	Protected Species
Cormorant	Cormorant
Curlew	Curlew
Dunlin	Dunlin
Great Crested Grebe	Little Egret
Black-headed Gull	Great Crested Grebe
Lesser Black-backed Gull	Black-headed Gull
Kestrel	Lesser Black-backed Gull
Knot	Kestrel
Kingfisher	Knot
Lapwing	Lapwing
Sand Martin	Little Egret
House Martin	Redshank
Linnet	Skylark
Redshank	Snipe
Skylark	House Sparrow
Snipe	Starling
House Sparrow	Swallow
Starling	Whooper Swan
Swallow	Teal
Teal	Wheatear
Wheatear	Wigeon
Whooper Swan	Wood Pigeon
Wigeon	

3.1.2 Birds of Conservation Concern in Ireland (BOCCI)

Birdwatch Ireland records and maps the bird species of Ireland. They have published a list of birds that are of conservation concern within Ireland. Red listed species are of High Conservation Concern. Further information can be found on their web site at www.birdwatchireland.ie

Table 13 below shows the 12 Red Listed Bird species identified and recorded during this survey

Table 13 - Red listed Species BOCCI

Red Listed Species

Breeding

Black-headed Gull
Common Scoter
Grey Wagtail
Herring Gull
Meadow Pipit

Breeding and Wintering

Curlew
Dunlin
Golden Plover
Lapwing
Redshank

Wintering

Shoveler
Wigeon

3.1.3 Previously Recorded Bird Species

The Table 14 below show the list of 16 previously recorded bird species.

Table 14 - Previously recorded bird species

Previously recorded Bird species

Blue-winged Teal	<i>Anas discors</i>	27/03/2013	Kilclinton
Garganey	<i>Anas querquedula</i>	23/06/2010	
Black Duck	<i>Anas rubripes</i>	09/08/2013	Sand Quay
Long-eared Owl	<i>Asio otus</i>	24/06/2017	Kilclinton
Scaup	<i>Aythya marila</i>	01/02/2016	Kenturk Point
Little Stint	<i>Calidris minuta</i>	27/08/2016	Kilclinton
Semipalmated Sandpiper	<i>Calidris pusilla</i>	18/09/2010	Kilclinton
Little Gull	<i>Larus minutus</i>	04/08/2013	
Jack Snipe	<i>Lymnocyptes minimus</i>	22/03/2015	
Citrine Wagtail	<i>Motacilla citreola</i>	16/09/2011	Ballylongford Bay
Ruff	<i>Philomachus pugnax</i>	23/06/2009	
Black-necked Grebe	<i>Podiceps nigricollis</i>	06/02/2015	Ballylongford Bay
Spoonbill	<i>Platalea leucorodia</i>	24/07/2015	Kilclinton
Long-tailed Skua	<i>Stercorarius longicaudus</i>	25/08/2015	Carrig Island
Wood Sandpiper	<i>Tringa glareola</i>	04/08/2013	Kilclinton
Green Sandpiper	<i>Tringa ochropus</i>	06/02/2015	Kilclinton



Figure 17 - Green Sandpiper - *Tringa ochropus*

3.1.4 Waterbirds

The presence of large numbers of water birds are indicators of a healthy habitat and a rich biodiversity within the area surveyed. The mudflats are hugely important for wintering birds, many of these birds would be returning year after year.

Table 15 on page 25 shows the monthly bird counts for 2019. It shows that there are water birds present all year round. The lowest counts recorded were in May(21) and June(23) whilst, the highest were in November(5207), December(6209) and January(3997). The vast majority of these birds are not breeding in the area and are migrant birds from mainly Iceland and mainland Europe. These birds are not present during the summer months due to lack of breeding habitat. Migrating birds start to arrive in late July. Some of these birds will stay for a while to feed and then move on further south, whilst the majority will stay for the winter. A total of 47 water bird species were recorded and identified during this survey 2019.

Table 15 - Monthly water bird counts 2019

Species Name	Scientific Name	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec
Water Birds													
Great Northern Diver	<i>Gavia immer</i>	-	5	-	2	-	-	-	-	-	-	3	4
Red Throated Diver	<i>Gavia stellata</i>	-	2	-	-	-	-	-	-	2	-	2	1
Great Crested Grebe	<i>Podiceps cristatus</i>	3	2	-	-	-	-	-	-	11	13	19	14
Little Grebe	<i>Tachybaptus ruficollis</i>	-	1	-	-	-	-	-	-	-	3	7	2
Cormorant	<i>Phalacrocorax carbo</i>	6	5	1	1	-	-	17	19	30	5	12	328
Shag	<i>Phalacrocorax aristotelis</i>	-	2	-	-	-	-	-	-	-	-	-	3
Little Egret	<i>Egretta garzetta</i>	4	-	10	2	3	1	8	14	15	18	6	12
Grey Heron	<i>Ardea cineria</i>	2	3	3	1	2	1	1	1	-	1	5	4
Whooper Swan	<i>Cygnus cygnus</i>	-	15	-	-	-	-	-	-	-	-	-	-
Brent Goose	<i>Branta bernicula</i>	49	58	-	-	-	-	-	-	-	-	-	32
Shelduck	<i>Tadorna tadorna</i>	77	37	8	10	8	8	-	2	-	1	7	32
Wigeon	<i>Anas penelope</i>	880	30	8	-	-	-	-	-	30	45	600	730
Teal	<i>Anas crecca</i>	70	86	48	51	-	-	-	-	17	12	230	168
Mallard	<i>Anas platyrhynchos</i>	14	-	8	4	2	4	16	26	6	1	59	8
Shoveler	<i>Anas clypeata</i>	-	4	-	-	-	-	-	-	-	-	-	-
Common Scoter	<i>Melanitta nigra</i>	1	-	-	-	-	-	-	-	1	-	-	-
Black Guillemot	<i>Cepphus grylle</i>	1	2	7	2	-	-	-	-	-	-	-	8
Razorbill	<i>Alca torda</i>	-	4	-	-	-	-	-	-	-	-	-	-
Gannet	<i>Morus bassanus</i>	-	-	-	-	-	-	-	-	11	-	-	-
Waders													
Oystercatcher	<i>Haematopus ostralegus</i>	12	8	3	9	-	-	27	37	50	6	26	74
Dunlin	<i>Calidris alpina</i>	700	400	-	-	-	-	70	42	122	80	900	1000
Curlew Sandpiper	<i>Calidris ferruginea</i>	-	-	-	-	-	-	-	-	1	-	-	-
Sanderling	<i>Calidris alba</i>	-	-	-	-	-	-	-	-	27	-	-	-
Knot	<i>Calidris canutus</i>	-	-	-	-	-	-	-	1	28	1	110	32
White-rumped Sandpiper	<i>Calidris fuscicollis</i>	-	-	-	-	-	-	-	-	-	1	-	-
Snipe	<i>Gallinago gallinago</i>	-	5	-	-	-	-	-	-	-	-	14	6
Bar-tailed Godwit	<i>Limosa lapponica</i>	6	-	-	-	-	-	-	-	2	18	1	2
Black-tailed Godwit	<i>Limosa limosa</i>	-	-	120	48	-	-	3	4	-	1	43	36
Whimbrel	<i>Numenius phaeopus</i>	-	-	-	26	-	-	1	1	-	-	-	-
Curlew	<i>Numenius arquata</i>	300	80	8	8	-	-	200	165	140	70	243	600
Lapwing	<i>Vanellus vanellus</i>	550	30	-	-	-	-	9	9	80	91	700	650
Golden Plover	<i>Pluvialis apricaria</i>	800	-	-	-	-	-	-	-	105	120	2000	2000
Grey Plover	<i>Pluvialis squatarola</i>	21	35	-	-	-	-	-	-	-	4	6	18
Ringed Plover	<i>Charadrius hiaticula</i>	46	-	20	-	-	-	16	23	32	43	55	73
Turnstone	<i>Asrenaria interpres</i>	18	30	25	-	-	-	-	14	18	120	32	21
Redshank	<i>Tringa totanus</i>	40	6	25	34	2	1	93	52	88	86	88	186
Greenshank	<i>Tringa nebularia</i>	6	2	1	1	-	-	-	2	9	4	7	9
Common Sandpiper	<i>Actitis hypoleucos</i>	-	-	-	1	-	2	1	-	1	-	-	1
Gulls													
Black-headed Gull	<i>Chroicocephalus ridibundus</i>	380	-	-	-	-	-	80	91	365	300	30	140
Mediterranean Gull	<i>Larus melanocephalus</i>	-	-	-	-	-	-	4	-	8	3	-	-
Common Gull	<i>Larus canus</i>	4	-	-	-	-	-	16	14	23	30	1	8
Herring Gull	<i>Larus argentatus</i>	3	-	-	2	-	-	2	18	8	6	-	3
Great Black-backed Gull	<i>Larus marinus</i>	4	8	4	2	2	4	4	4	7	11	1	4
Lesser Black-backed Gull	<i>Larus fuscus</i>	-	-	4	7	2	2	8	4	9	30	-	-
Common Tern	<i>Sterna hirundo</i>	-	-	-	-	-	-	-	1	2	-	-	-
Sandwich Tern	<i>Sterna sandvicensis</i>	-	-	-	2	-	-	27	2	14	-	-	-
Kingfisher	<i>Alcedo atthis</i>	-	-	-	-	-	-	1	-	-	-	-	-
Total		3997	860	303	213	21	23	604	546	1259	1124	5207	6209



Figure 18 - High tide roost of Redshank and Dunlin at Carrig Island

3.1.5 Turtle Dove

There were strong easterly winds recorded for two days which had blown this Turtle Dove off course. They migrate to Africa for the winter During September. I was very lucky and delighted to find this rare bird for Ballylongford near Kilelton.



Figure 19 - Turtle Dove - *Streptopelia turtur*

3.1.6 Chough

A pair of Chough were seen on a number of occasions at Carrig Island near the Battery. They are rarely seen inland and have only been recorded once in County Limerick as a storm blown bird. They are members of the crow family that have distinctive red legs and bill.



Figure 20 - Chough - *Pyrrhocorac pyrrhocorax*

3.1.7 Wheatear

The Wheatear is a delightful little bird that can be found along the shoreline. They have a white rump that stands out when they are flying away from you. Usually seen in Spring and Autumn passing through on migration.



Figure 21 - Wheatear - *Oenanthe oenanthe*

3.1.8 Mediterranean Gull

The Mediterranean Gull is a relatively new breeding bird species in Ireland, which has bred amongst Black-headed Gulls at Lady's Island, County Wexford . There were 8 of these Gulls in a cut field near the Carrig Island bridge. They are similar to the Black Headed Gull with red legs and bill. However, the adult has white wing tips and a short blood red bill. The figure below shows a second winter bird seen on 21st September 2019.



Figure 22 - Mediterranean Gull - *Larus melanocephalus*

3.1.9 Cormorant Roost

On December 1st there were only 2 Cormorants seen during the day, which was very low as I had seen double figures on previous counts. Then, around 3.30pm a line of 16 Cormorants arrived into Ballylongford Bay. Then more and more arrived until around 4pm. A total count of 328 birds had arrived and were roosting on the trees along the creek opposite Lislaughtin Cemetery. This is the highest count for Cormorant in County Kerry and is of National Importance. This is a new winter roost site and only time will tell if they decide to stay and breed or return next winter. Cormorants are often seen with their wings spread out to dry after diving for fish. Figure 24 below shows a Cormorant close to the shoreline at Carrig Island.



Figure 23 - Cormorant - *Phalacrocorax carbo*

3.2 Mammal list

The number of mammals recorded was 3, which is very low as there are probably other species present that I did not record. I do not put out traps or food to attract them. Most mammals are nocturnal and are not active during daylight hours when I am surveying. I was startled when a Hare jumped out about 12 feet in front of me and bolted down the shoreline at Kilelton. I recorded the Bottle-nosed Dolphin on two occasions from Carrig Island. A pod of 7 came in very close to the shoreline in beautiful sunshine on the 1st of December. In the past I had seen an Otter along the shoreline at Kilelton. Personal comments from local people also stated that they had seen Common Seal, badger and Hedgehog.

3.3 Butterfly list

The number of butterfly species recorded was 12, which is about a third of the Irish butterfly list. The Wall Brown is becoming scarce in Ireland so I was delighted to find them on Carrig Island near the Battery. The Holly Blue has been expanding its distribution in recent years. They lay their eggs on Holly. All the other species found are common.

3.4 Hoverfly List

The number of hoverfly species recorded was 16. All species found are common and under recorded.

3.5 Flowering Plants

The number of Flowering Plant species recorded was 144, which is quite high because of the variety of habitats within the survey area.

3.6 Fungi

The number of fungi species recorded was 2, which is low due to a lack of woodland habitat. There are probably other species present but not found during this survey.

4 Conclusion

This survey successfully recorded species of birds, hoverfly, bumblebee, ladybird, bony fish, other terrestrial invertebrates, flowering plants and fungi. However there are many other groups of living things that have not been recorded. Further recording will increase the list of Biodiversity present at Ballylongford.

There are 23 threatened species, 22 protected species and 12 Red Listed Birds of Conservation Concern recorded in the survey area. The records that were submitted to the NBDC database during this survey will help to fill in the gaps for each species map. This is part of Citizen Science and I am hoping this report will encourage others to start recording and submit records.

The habitat of these species needs to be protected to halt the loss of Biodiversity so that future generations will survive. Not only for the benefit of Biodiversity but also for the pleasure it provides to people. Recreation is very important for our well being and connecting to nature is great way of relaxing. I am hoping that people will look through this report and become more aware of the nature that lives beside us every day.

The highlights of this survey for me was finding a rare Turtle Dove at Kilelton. Watching a Hen Harrier putting up the birds on the mudflats is always exciting no matter what the weather is. Kingfisher are always a treat to see as they are so colourful. Watching diving Gannets on a windswept afternoon. Getting up close to Swallows in the Castle. Finding a new colony of Wall Brown butterfly, which are sadly declining due to habitat loss. The spectacle of Golden Plovers with lapwing in flight in vast numbers. Recording over 6000 birds in one day which, indicates a healthy environment and one that I really hope survives into the future. Discovering a new colony of Cormorants of National Importance.

Keep up to date with recent bird sightings reported on the [http://: Kerry Birding Blogspot.com](http://KerryBirdingBlogspot.com) If you see anything of interest in the future please contact either Ed Carthy 087-2383375 or myself.

Finally, I would like to thank the people I meet during my rambles along the shoreline and around town for showing an interest in what I was doing. Happy hunting.

5 References

The following books were used for identification of species recorded during this survey.

Collins Bird Guide, [2001] by Killian Mullarney, Lars Svensson, Dan Zetterstrom and Peter J Grant

Collins Flower Guide, [2009] by David Streeter, C. Hart-Davies, A Hardcastle, F. Cole, & L. Harper

Flora of Country Limerick, [2013] by Sylvia C.P. Reynolds, National Botanic Gardens

The Natural History of Ireland's Dragonflies, [2004] by Brian Nelson and Robert Thompson, MAGNI

British Hoverflies, [2002] by Alan E. Stubbs and Steven J. Falk, BENHS

Bird Atlas 2007-11, [2103] by Dawn Balmer, Simon Gillings, Brian Caffrey, Bob Swann, Iain Downie and Rob Fuller, BTO books

Identification Guide to Ireland's Ladybirds, [2015] by Colette O' Flynn, Brian J. Pinchen and Una Fitzpatrick, NBDC

Identification Guide to Ireland's Shieldbugs [2012] by Don Cotton, Brian Nelson and Una Fitzpatrick, NBDC

Identification Guide to Ireland's Bumblebees [2010] by Una Fitzpatrick, Andrew Byrne and Bryan J. Pinchen, NBDC

Identification Guide to Ireland's Butterflies [2011] by Eugenie Regan and Liam Lysaght, NBDC

Britain's Plant Galls, [2011] by Michael Chinery, Wild Guides

Mushrooms, [2003] by Patrick Harding, Collins Gem

Face book

Geoff Hunt

Insects/Invertebrates of Ireland

Web sites

www.wildflowersofireland.net [Zoe Devlin, Identification by colour]

www.naturespot.org.uk [Identification of species]]

<http://kerrybirding.blogspot.com/>

Contact details

Geoff Hunt. 087-7656439 or Facebook Geoff Hunt

Ed Carthy Bird recorder for County Kerry 087-238 3375

5.1 Appendix

See the following pages for images for some of the species seen during this survey

Garden birds



Robin



House Sparrow



Blackbird



Song Thrush



Blue Tit



Great Tit



Long Tailed Tit



Coal Tit



Bullfinch



Greenfinch



Goldfinch



Chaffinch

More Garden Birds

Designed by Geoff Hunt Images by Geoff Hunt, Mike Flanagan and Mark Hunt



Wren



House Sparrow female



Dunnock



Waxwing



Blackbird Female



Female Chaffinch



Goldcrest



Starling



Siskin



Redpoll



Pied Wagtail



Blackcap



Jackdaw



Magpie



Rook



Hooded Crow



Woodpigeon



Collared Dove



Swallow



House martin

Water Birds



Whooper Swan



Cormorant



Great Crested Grebe



Brent Goose



Mallard Drake



Mallard



Teal



Wigeon



Shelduck



Grey Heron



Little Egret



Kingfisher



Black Headed Gull



Mediterranean Gull



Herring Gull



Lesser Black-back gull



Great Black-back Gull



Curlew



Whimbrel



Oystercatcher



Redshank



Greenshank



Black-tailed Godwit



Dunlin

Insects



Migrant Hawker



Green Shieldbug



White-legged Snake Millipede



Noonfly



Seven spot Ladybird



Marmalade Fly



Sphaerophoria scripta



Helophilus pendulus



Scaeva pyrastris



Robin's Pincushion



Bombus pascourum



Wasp

Ballylongford Plants



Bird's-foot Trefoil



Bluebell



Creeping Cinquefoil



Yellow Pimpernel



Russian Comfrey



Figwort



Thrift



Fleabane



Century



Scarlet Pimpernel



Herb-robert



Ivy-leaved Toadflax



Common Mouse-ear



Oxeye Daisy



Lady's-smock



Spear Thistle



Wood Avens



Duke of Argyll's Teaplat



Bladder Campion



Scurvy Grass

Butterflies



Orange Tip



Green-veined White



Large White



Holly Blue



Red admiral



Painted Lady



Small Tortoiseshell



Peacock



Speckled Wood



Ringlet



Wall Brown



Meadow Brown



Figure 24 - Cormorant roost